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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,023	04/13/2005	Gerold Schultheiss	081859-0106	9487
22428 7590 01/18/2007 FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			EXAMINER BONCK, RODNEY H	
			ART UNIT	PAPER NUMBER
			3681	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/18/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/521,023	Applicant(s) SCHULTHEISS ET AL.	
	Examiner Rodney H. Bonck	Art Unit 3681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>01/12/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The following is a first action on the merits of application Serial No.10/521,023, filed April 13, 2005.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

Receipt is acknowledged of the Information Disclosure Statement filed January 12, 2005. The cited documents have been considered.

Specification

The disclosure is objected to because of the following informalities:

Reference to specific claim numbers in the specification is objected to because the claims can be amended, canceled, and or renumbered during prosecution, rendering the reference thereto meaningless.

In lines 12-13 of page 8 of the specification, the intended meaning of "the coolant becoming salted up" is not understood.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

- The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, the intended meaning of "designed as a release clutch" is unclear. In claim 2, it is unclear whether the expression "designed as an electromagnetic clutch" is intended to mean that the clutch is an electromagnetic clutch. In claim 3, there is no antecedent basis for "the electromagnetic clutch" and for "the pulley". In claim 6, "the driving disks" lacks an antecedent basis. In claim 7 there is no antecedent for "the electromagnetic clutch", "the pulley", and "the magnet coil". In claim 8, it is unclear whether the expression "designed as a pulley" means that the drive wheel is a pulley. It is unclear whether the portion in parentheses in claim 8 is intended as a part of the claim. There is no antecedent basis for "the electromagnetic clutch". Claims 10-12, which are directed to a method, do not clearly set forth the steps that are to be performed. In claims 11 and 12, "stage 1" and "stage 2" lack a proper antecedent and should be – the first stage- and –the second stage-.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Mueller('257). Mueller discloses a device having a drive train comprising a drive wheel 40, a fluid friction clutch 60, a drive shaft 76, and a second clutch 48 in parallel with the fluid friction clutch. The second clutch is an electromagnetic clutch. The fluid friction clutch and the electromagnetic clutch each have a driving disk, 92 and 56b, which can be driven by the drive wheel and are fastened to the drive shaft 76 on both sides of the web 96 of drive wheel 40. The driving disk 92 is arranged in a working space formed by the drive wheel 40, the web 96, and a cover 98b, and is filled with viscous fluid.

Claims 1, 2, and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Makoto et al.(JP 62-210287 A). The Makoto et al. device has a drive wheel 25, a fluid friction clutch 23, a drive shaft 13, and a second clutch 31 connected in parallel to the fluid friction clutch. The second clutch is an electromagnetic clutch. The drive shaft 13 is rotatably mounted in a bearing housing 11, which has a coolant pump impeller 14. The driving disks are fastened to its driving end.

Claim 10 is rejected under 35 U.S.C. 102(e) as being anticipated by Faller et al.('887). Faller et al. disclose a method of controlling the speed of a coolant pump including driving the pump at a reduced speed using the magnets 16 and disks 15 and a non-reduced speed via an electromagnetic clutch as a function of an engine parameter.

With respect to Faller et al., Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-4 and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scott('812) in view of Faller et al.('887). Scott discloses a device having a drive train comprising a drive wheel 56, a fluid friction clutch 50 and a drive shaft 68. The drive shaft is mounted in a bearing housing 54, which has a coolant pump impeller 72. driving disk 62 of the fluid friction clutch is mounted to the shaft 68. The clutch unit can be preassembled and plugged onto the drive shaft 68. The fluid friction clutch would drive the pump at reduced speed, but Scott lacks a second clutch to drive the pump at non-reduced speeds. Faller et al. suggests providing a second, electromagnetic clutch on the opposite side of drive wheel or pulley 7a permitting the clutch assembly to drive the pump at non-reduced speeds. It would have been obvious to add the second clutch to the Scott device, the motivation being to provide enhanced coolant flow when needed. Faller et al. also shows the claimed central screw bolt at 18 for mounting the assembly.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scott('812) in view of Faller et al.('887) as applied to claims 1-4 and 6-9 above, and further in view of Mueller('257). The combination of Scott and Faller et al. does not show leaf springs for mounting the armature. It is common in electromagnetic clutches to mount the armature via leaf springs, such as at 86a of Mueller. In incorporating an electromagnetic clutch in the Scott device, it would have been obvious to mount the

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armature via leaf springs, the motivation being to use a connection known to be suitable for this purpose.

With respect to Faller et al., Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scott('812) in view of Makoto et al.(JP 62-210287 A). Scott only provides for driving the pump at reduced speed because of the slip of the fluid friction clutch. Makoto et al. suggests driving the pump at a second non-reduced speed via an electromagnetic clutch based on engine speed (see Figs. 2 and 5). It would have been obvious to provide for two-speed operation of the Scott device, the motivation being to more effectively flow of coolant under varying conditions.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Brewer('716) shows a two-speed fan drive. Hummel et al.('536) teaches control based on engine parameters. Saeki et al.(928) shows an electromagnetic and fluid friction clutch combination. Linnig('992), Linnig('636), and Linnig(DE 42 07 709 A1) show two-speed drives. Yano(JP 59-46379 A) shows an electromagnet and fluid friction clutch combination in a compressor drive.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney H. Bonck whose telephone number is (571) 272-7089. The examiner can normally be reached on Monday-Friday 7:00AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on (571) 272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Rodney H. Bonck
Primary Examiner
Art Unit 3681

rhb

January 12, 2007